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(54) **IDENTIFICATION OF DISCRIMINANT PROTEINS THROUGH ANTIBODY PROFILING, METHODS AND APPARATUS FOR IDENTIFYING AN INDIVIDUAL**

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(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

A method for determining a plurality of proteins for discriminating and positively identifying an individual based from a biological sample. The method may include profiling a biological sample from a plurality of individuals against a protein array including a plurality of proteins. The protein array may include proteins attached to a support in a preselected pattern such that locations of the proteins are known. The biological sample may be contacted with the protein array such that a portion of antibodies in the biological sample reacts with and binds to the proteins forming immune complexes. A statistical analysis method, such as discriminant analysis, may be performed to determine discriminating proteins for distinguishing individuals. Proteins of interest may be used to form a protein array. Such a protein array may be used, for example, to compare a forensic sample from an unknown source with a sample from a known source.